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(12) **United States Patent**
Yamada et al.(10) Patent No.: US 6,259,432 B1
(45) Date of Patent: Jul. 10, 2001(54) INFORMATION PROCESSING APPARATUS
FOR IMPROVED INTUITIVE SCROLLING
UTILIZING AN ENHANCED CURSOR

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(57) ABSTRACT

An information processing apparatus that can adjust the scrolling speed for data displayed in an application window on a display and display a visual scrolling speed indicator. When the user manipulates a mouse to request scrolling of data in a window, the display form of the mouse cursor is changed. That is, in addition to the mouse cursor, one or more speed indicators appears in the scrolling direction. The number of speed indicators which are displayed corresponds to the scrolling speed. The speed indicators are arranged from the center of the mouse cursor in the scrolling direction. A speed indicator is shaped like a small isosceles triangle, and as its vertex is facing in the scrolling direction, it is a very effective visual aid for a user. Preferably, one speed indicator is displayed for a low scrolling speed, two for a moderate scrolling speed and three for a high speed scrolling. Since the speed indicators are extended in the scrolling direction in accordance with the current scrolling speed, a user can intuitively and quantitatively comprehend the scrolling speed and direction. Since the speed indicator is displayed in the vicinity of the mouse cursor, a user does not need to remove his or her eyes from a focus point on the display screen and the continuity of the operation can be maintained.

8 Claims, 6 Drawing Sheets

